JOURNAL OF NEMATOLOGY

Official Journal of

THE SOCIETY OF NEMATOLOGISTS

VOLUME 1

QUARTERLY IN 1969

Editor-in-Chief
S. D. VAN GUNDY

Editorial Board

J. M. GOOD, JR. G. C. SMART, JR.
L. R. KRUSBERG H. H. TRIANTAPHYLLOU
S. D. VAN GUNDY

Associate Editors

A. AYALA H. L. SCOTT
B. E. HOPPER I. J. THOMASON
G. O. POINAR, JR. K. A. WRIGHT

JOURNAL OF NEMATOLOGY

CONTENTS

Vol. 1, No. 1 January 1969
Dedication1
Nathan Augustua Cobb (1859–1932), a Tribute • Edna M. Buhrer2
Abstracts of Papers Presented at the Seventh Annual Meeting of The Society of Nematologists, Columbus, Ohio, September 3–6, 19684
Pathogenicity and Histopathology of <i>Meloidoygne graminis</i> Infecting 'Tifdwarf' Bermudagrass Rosts · C. M. Heald
The Comparative Effects of Chloramines on a Range of Nematodes • D. R. Viglier-chio and N. A. Croll35
Effect of Heterodera glycines on Yields of Nonnodulating Soybeans Grown at Various Nitrogen Levels • J. P. Ross 40
Thermotactic Response of Some Plant Parasitic Nematodes • M. El-Sherif and W. F. Mai 43
Corethrellonema grandispiculosum n. gen., n. sp. and Aproctonema chapmani n. sp. (Nematoda: Tetradonematidae), Parasites of the Dipterous Insects Genera, Corethrella and Culicoides in Louisiana • W. R. Nickle49
The Hypersensivity Reaction of Tomatoes Resistant to <i>Meloidogyne incognita</i> : Reversal by Cytokinins • V. H. Dropkin, J. P. Helgeson, and C. D. Upper55
Gametogenesis and the Chromosomes of Two Root-knot Nematodes <i>Meloidogyne</i> graminocola and M. naasi • A. C. Triantaphyllou62
A Sterol Requirement in <i>Turbatrix aceti</i> and <i>Panagrellus redivivus</i> • R. J. Cole and S. R. Dutky
Axenic Ovarial Explants from the Marine Nematode Deontostoma californicum on Culture Media • D. R. Viglierchio, A. R. Maggenti, and R. N. Johnson 76
Life History of <i>Microtetrameres centuri</i> Barus, 1966 (Nematoda: Tetrameridae) II. Juvenile • C. J. Ellis84
Research Notes
Exsheathment in Longidorus africanus (Nematoda: Dorylaimoidea) · F. Lamberti 94
Silicone Rubber for Ringing Clover Glasses • F. E. Caveness96
Vol. 1, No. 2 April 1969
The Genus Isolaimium Cobb, 1920 (Order Isolaimida, Isolaimidae New Family R. W. Timm 97
Effect of Grapevine Fanleaf Virus on the Reproduction and Survival of its Nematode Vector, <i>Xiphinema index</i> Thorne & Allen • S. Das and D. J. Raski 107
Pathogenicity of Four Species of <i>Meloidogyne</i> on Three Varieties of Olive Trees • F. Lamberti and R. C. Baines

Effect of Temperature on the Dispersion of 1,2-dibromo-3-chloropropane in Soil • D. E. Johnson and B. Lear	116
Effect of Meloidogyne incognita, M. hapla, and M. javanica on the Severity of Fusarium Wilt of Chrysanthemum • A. W. Johnson and R. H. Littrell1	122
Revision of the Genus <i>Hemicriconemoides</i> Chitwood & Birchfield, 1957 (Nematoda: Criconematidae) • D. R. Das Gupta, D. J. Raski, and S. D. Van Gundy	126
Effects of Fixation and Dehydration Procedures on Marine Nematodes • R. W. Timm and T. Hackney	146
Infectivity of Two Biotypes of the Citrus Nematode on Citrus and on Some Other Hosts • R. C. Baines, T. Miyakawa, J. W. Cameron, and R. H. Small	150
Variability of the Basal Esophageal Sheath in Belondirid Nematodes • H. C. Hechler1	160
Transmission of an Agrobacterium tumefaciens Phage by Pristionchus Iheriteiri A. Chantanao and H. J. Jensen	166
Heterodera betulae n. sp. (Heteroderidae), Cyst-forming Nematode from River Birch · H. Hirschmann and R. D. Riggs	169
Life Cycle, Host Range, and Reproduction of Heterodera betulae · R. D. Riggs, H. Hirschmann, and M. L. Hamblen	181
Dauer Larvae of Caenorhabditis briggsae in Axenic Culture • E. A. Yarwood and E. L. Hansen	185
Research Note	
Alflalfa Root Galls Caused by the Stem and Bulb Nematode • E. J. Hawn	191

Vol. 1, No. 3 July 19	69
Vol. 1, No. 3 A Comparison of Preparation Techniques in Taxonomic Studies of Longidorus africanus Merny · F. Lamberti and S. A. Sher Interrelationships between Root-nodule Bacteria, Plant-parasitic Nematodes and	
Vol. 1, No. 3 A Comparison of Preparation Techniques in Taxonomic Studies of Longidorus africanus Merny • F. Lamberti and S. A. Sher Interrelationships between Root-nodule Bacteria, Plant-parasitic Nematodes and	193 201
A Comparison of Preparation Techniques in Taxonomic Studies of Longidorus africanus Merny • F. Lamberti and S. A. Sher Interrelationships between Root-nodule Bacteria, Plant-parasitic Nematodes and their Leguminous Host • A. H. Y. Taha and D. J. Raski The Influence of Temperature on Development and Sex Differentiation of Meloidogyne graminis • C. W. Laughlin, A. S. Williams, and J. A. Fox Saprozoic Nematodes as Carriers and Disseminators of Plant Pathogenic Bacteria •	193 201
Vol. 1, No. 3 July 19 A Comparison of Preparation Techniques in Taxonomic Studies of Longidorus africanus Merny • F. Lamberti and S. A. Sher Interrelationships between Root-nodule Bacteria, Plant-parasitic Nematodes and their Leguminous Host • A. H. Y. Taha and D. J. Raski The Influence of Temperature on Development and Sex Differentiation of Meloidogyne graminis • C. W. Laughlin, A. S. Williams, and J. A. Fox Saprozoic Nematodes as Carriers and Disseminators of Plant Pathogenic Bacteria •	193 201 212 216
Vol. 1, No. 3 July 19 A Comparison of Preparation Techniques in Taxonomic Studies of Longidorus africanus Merny • F. Lamberti and S. A. Sher Interrelationships between Root-nodule Bacteria, Plant-parasitic Nematodes and their Leguminous Host • A. H. Y. Taha and D. J. Raski The Influence of Temperature on Development and Sex Differentiation of Meloidogyne graminis • C. W. Laughlin, A. S. Williams, and J. A. Fox Saprozoic Nematodes as Carriers and Disseminators of Plant Pathogenic Bacteria • A. Chantanao and H. J. Jensen The Relationship of Meloidogyne incognita acrita to the Incidence of Cabbage Yellows • G. Fassuliotis and G. J. Rau Effect of Liquid Nutrient Culture, Vacuum Distillation and Dialysis on Hatching Activity of Sugar Beet Root Diffusate for Heterodera schachtii • A. E. Steele	1193 2201 2212 2216 2219
A Comparison of Preparation Techniques in Taxonomic Studies of Longidorus africanus Merny • F. Lamberti and S. A. Sher Interrelationships between Root-nodule Bacteria, Plant-parasitic Nematodes and their Leguminous Host • A. H. Y. Taha and D. J. Raski The Influence of Temperature on Development and Sex Differentiation of Meloidogyne graminis • C. W. Laughlin, A. S. Williams, and J. A. Fox Saprozoic Nematodes as Carriers and Disseminators of Plant Pathogenic Bacteria • A. Chantanao and H. J. Jensen The Relationship of Meloidogyne incognita acrita to the Incidence of Cabbage Yellows • G. Fassuliotis and G. J. Rau Effect of Liquid Nutrient Culture, Vacuum Distillation and Dialysis on Hatching Activity of Sugar Beet Root Diffusate for Heterodera schachtii • A. E. Steele and J. M. Fife Praecocilenchus rhaphidophorus n. gen., n. sp. (Nematoda: Aphelenchoidea) Parasitizing Rhynchophorus bilineatus (Montrouzier) (Coleoptera: Curculionidae)	1193 2201 2212 2216 2219

Effects of Storage Temperature and Extraction Procedure on Recovery of Plant- parasitic Nematodes from Field Soils • K. R. Barker, C. J. Nusbaum and L. A. Nelson	240	
Tuningants J. D. Italia	248	
Amino Acids from Heterodera glycines • S. Aist and R. D. Riggs	254	
Pratylenchus penetrans (Cobb) Populations as Influenced by Microorganisms and Soil Amendments • J. T. Walker	260	
The Histochemical Localization of Several Enzymes of Soybeans Infected with the Root-knot Nematode <i>Meloidogyne incognita acrita</i> • J. A. Veech and B. Y. Endo	265	
Research Notes		
Techniques for Controlling Bacterial Flora of Pristionchus lheritieri • A. Chantanao and H. J. Jensen	277	
A Technique for Studying Penetration of Roots of Plants by Endoparasitic Nematodes • R. A. Chapman and M. J. Eason	279	
Vol. 1, No. 4 October 19	69	
Abstracts of Papers Presented at the Eighth Annual Meeting of The Society of Nematologists, San Francisco, California, August 10–13, 1969	281	
Population Dynamics of Plant Nematodes in Cultivated Soil: Effect of Sod-based Rotations in Cecil Sandy Loam • B. B. Brodie, J. M. Good and W. E. Adams	309	
Sexual Attraction and Mating Patterns in Cylindrocorpus longistoma and C. curzii		
(Nematoda: Cylindrocorporidae) • D. A. Chin and D. P. Taylor	313	
Peanut Pod Invasion by Aspergillus flavus in the Presence of Meloidogyne hapla N. A. Minton, D. K. Bell and B. Doupnik, Jr.	318	
Taxonomy and Morphology of Axonchium (Nematoda: Belondiroidea), and a description of A. thornei n. sp. · H. C. Hechler	321	
Criconemoides ornatus Parasitic on Peanuts · N. A. Minton and D. K. Bell	349	
Oogenesis and Embryology of Two Plant-parasitic Nematodes, <i>Pratylenchus penetrans</i> and <i>P. zeae</i> • C. Hung and W. R. Jenkins	352	
Gametogenesis and Reproduction of Seven Species of <i>Pratylenchus</i> • J. Roman and A. C. Triantaphyllou	357	
Morphology and Morphometrics of Six Species of Pratylenchus • J. Roman and H. Hirschmann	363	
RESEARCH NOTE		
Expressing Sucrose Concentration in Solutions Used for Extracting Nematodes • B. Thistlethwayte and R. M. Riedel	387	
INDEX FOR VOLUME 1 (1969)	389	
TABLES OF CONTENTS FOR VOLUME 1 (1969)	ii–iv	